Q-369

SVE BULLETIN

SPECIAL VEHICLE ENGINEERING – FORD PRO BODY BUILDERS ADVISORY SERVICE

Website: https://www.fordpro.com/en-us/upfit/publications/

F-150 LIGHTNING (BEV) PICKUP REAR SEAT REMOVAL

REVISION	UPDATE	REVISION DATE
Q-369	INITIAL RELEASE	24SEP2024

MODEL(S) AFFECTED:
F-150 LIGHTNING SUPERCREW **PRO SERIES GREATER THAN 8500 GVWR**

ISSUE / DESCRIPTION:
Removal of the rear seat and restraint systems to accommodate vocational upfit for rear storage.

(Note: Disablement or Removal of Rear Safety Restraint Systems is mandatory for all rear seat removals.)

Rear Seat & Seatbelt System removal overview:

(For a more detailed removal process and disposal of equipment, please refer to Ford Workshop Manual www.motorcraftservice.com)

- Step 1: Remove rear RH/LH (right/left-hand) and Center seatbelt buckle from rear seat assembly. Detach the buckles from the seatbelt webbing and stow aside for Step 6.
- Step 2: Remove rear RH/LH side seat assemblies and discard.
- Step 3: Remove center seatbelt retractor and discard. (No pyrotechnic feature is equipped on this retractor).
- Step 4: Remove/Disconnect the subwoofer speaker (if equipped), and discard.
- Step 5:

  Outboard Retractors:

  a) **Disablement:** Fully extend seatbelt webbing and cut at trim panel opening. Repeat for opposite side. (Note: Retractor will recoil remaining webbing.)

  OR

  b) **Removal:** Remove seatbelt retractor and discard (see Appendix for proper discharge and disposal of pyrotechnic device disposal/outboard retractors). Repeat for opposite side. Squibs (2.2 Ω resistor recommended) will need to be installed to prevent SRS fault codes/DTCs. (Recommend following the Ford Workshop Manual for Rear Seat Retractor And Pretensioner Removal – Section 501-20A)

  NOTE: If 12-Volt battery has been disconnected and reconnected, the FRUNK close buttons will not function. To restore FRUNK buttons functionality, the 12-Volt battery must be connected and the FRUNK is closed manually.
- Step 6: Stow the seatbelt buckles and associated wiring securely.
- Step 7: Seatbelt and Seat attachment bolts/nuts must be discarded.

Aftermarket Partition/Bulkhead Considerations:

- CAD Data of the curtain airbag keep-out zones is available upon request via BBAS helpdesk.
- Side curtain airbags are standard on F-150 Lightning. The vehicle Alterer must ensure that the aftermarket partition/bulkhead does not interfere with side curtain airbag deployment.
- Partition/Bulkhead should not interfere with or obstruct the front seats.
- To prevent damage to air curtain during deployment: partition/bulkhead should contain rounded outboard edges, and have no protruding fasteners or sharp edges facing toward the air curtain deployment zone.

- Partition/Bulkhead need to be positioned at or rearward of the front seats / B-pillar trim surface while maintaining existing headliner and B-pillar surface.
- Partition/Bulkhead cannot attach directly to the headliner to ensure proper airbag deployment.
- Seatbelt Retractor Damage:
  - When fastening any aftermarket equipment to the B-Pillar (such as a bulkhead/ partition), the vehicle Alterer must ensure that drilling operations and/or fasteners do not damage the front seatbelt retractors.

Labels Consideration:

- Unaltered vehicle as sold by Ford Motor Company is a completed vehicle.
- The removal of the rear seats and disconnection of the associated safety restraints system will require the vehicle Alterer to create and affix a new TREAD Act Label (FMVSS 110) indicating that vehicle occupancy has been changed (5 Passenger to 2 Passenger). The new label must be affixed over the original TREAD Act Label (FMVSS 110) on the B-pillar such that the original label is completely covered.
- An Altered Vehicle Label must be also affixed to the vehicle by the vehicle Alterer when the vocational upfit is completed.

GVWR Consideration:

- The Altered Vehicle is not to exceed the GVWR as built from Ford Motor Company.

Statement of Conformity:

- The vehicle Alterer is responsible for maintaining the vehicle's compliance to all applicable FMVSS standards when the alteration is complete.

Warranty Consideration:

- Any interior/door trim, back/side glass, safety systems, or rear door systems damaged during vocational upfit cannot be warranted by Ford Motor Company.

Vehicle Decommissioning:

- Reinstalling rear seating and/or safety belt system cannot be performed.

Note: Ford Motor Company does not make any representation as to the appropriateness of modifications for any particular application other than expressly stated herein. Vehicle Alterers must exercise proper engineering judgment to determine if a modification is appropriate for their specific application.

APPENDIX

(Source: https://www.fordtechservice.dealerconnection.com/, *501-20B Supplemental Restraint System, General Procedures, 2024 F-150)*

See next page.

Pyrotechnic Device Disposal

Disposal

Disposal of Deployable Devices and Pyrotechnic Devices That Are Undeployed-Inoperative

NOTE: *All inoperative airbags, seatbelt pretensioners and inflatable seatbelt inflators have been placed on the Mandatory Return List. Treat all discolored or damaged airbags the same as any inoperative live airbag being returned.*

1. **WARNING: Before beginning any service procedure in this manual, refer to health and safety warnings in section 100-00 General Information. Failure to follow this instruction may result in serious personal injury.**

   Refer to: Pyrotechnic Device Health and Safety Precautions (100-00 General Information, Description and Operation).

2. Depower the SRS
   Refer to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

3. Remove the undeployed/inoperative device. Refer to the appropriate procedure in this section or in the seatbelt system section.

4. **NOTE:** *When installing a new airbag or inflatable seatbelt inflator, a prepaid return postcard is provided with the replacement part. The serial number for the new part and the VIN must be recorded and sent to Ford Motor Company.*

   If installing a new airbag, or inflatable seatbelt inflator, record the necessary information and return the inoperative airbag to Ford Motor Company.

Disposal of Deployable Devices and Pyrotechnic Devices That Are Deployed

5. Depower the SRS .
   Refer to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

6. Remove the deployed device. Refer to the appropriate procedure in this section or in the seatbelt system section.

7. **NOTE:** *If a dual stage driver or passenger airbag has deployed due to a crash event, the airbag requires manual deployment to make sure both stages and the active canister vent (if equipped) have deployed before scrapping the vehicle or disposing of the airbag.*

   Determine if the vehicle is equipped with dual stage driver or passenger airbags.
   Refer to: Airbag and Seatbelt Pretensioner Supplemental Restraint System (SRS) - System Operation and Component Description (501-20B Supplemental Restraint System, Description and Operation).

8. REFER to: Disposal of Deployable Devices and Pyrotechnic Devices That Require Manual Deployment in this procedure.

9. Seal the deployed air bag module(s) in the packaging from the new air bag module(s) or a suitable polythene bag and dispose of the deployed device.
   - If required, dispose of in accordance with local contaminated waste regulations.
   - If there are no local contaminated waste regulations, dispose of the deployed device in the same manner as any other part to be scrapped.

Disposal of Deployable Devices and Pyrotechnic Devices That Require Manual Deployment

NOTE: *Safety and environmental concerns require consideration and treatment of restraints system deployable and pyrotechnic devices when disposing of vehicles, deployable devices or pyrotechnic devices. Deploying deployable and pyrotechnic devices before scrapping a vehicle or the device eliminates the potential for hazardous exposures or reactions during processing. If special handling procedures are followed, deployable and pyrotechnic devices can be deployed safely and recycled with the vehicle, shipped separately to a recycling facility or disposed of safely.*

10. To determine the deployable devices a vehicle is equipped with:
    Refer to: Airbag and Seatbelt Pretensioner Supplemental Restraint System (SRS) - System Operation and Component Description (501-20B Supplemental Restraint System, Description and Operation).

11. A vehicle equipped with any of the following deployable devices requires manual deployment of the devices before scrapping the vehicle or component. For additional information, refer to the appropriate portion of this procedure.

12. - Driver airbag
    - Inflatable seatbelt inflators
    - Knee airbag
    - Passenger airbag
    - Seat side airbag
    - Safety Canopy®
    - Side air curtain

13. To determine the pyrotechnic devices a vehicle is equipped with:
    Refer to: Airbag and Seatbelt Pretensioner Supplemental Restraint System (SRS) - System Operation and Component Description (501-20B Supplemental Restraint System, Description and Operation).

14. A vehicle equipped with any of the following pyrotechnic devices requires manual deployment of the devices before scrapping the vehicle or component. For additional information, refer to the appropriate portion of this procedure.

15. - Inflatable seatbelt inflators
    - Seatbelt buckle pretensioners
    - Seatbelt retractor pretensioners

- Seatbelt anchor pretensioners
- Adaptive load-limiting retractors
- Deployable steering column

16. **NOTE:** *If a dual stage driver or passenger airbag has deployed due to a crash event, the airbag requires manual deployment to make sure both stages and the active canister vent (if equipped) have deployed before scrapping the vehicle or disposing of the airbag.*

    To determine if a vehicle is equipped with dual stage driver or passenger airbags:
    Refer to: Airbag and Seatbelt Pretensioner Supplemental Restraint System (SRS) - System Operation and Component Description (501-20B Supplemental Restraint System, Description and Operation).

17. If a dual stage driver or passenger airbag has deployed due to a crash event, the airbag requires manual deployment to make sure both stages and the active canister vent have deployed before scrapping the vehicle or disposing of the airbag. Refer to Driver, Passenger, Knee, Side Curtain and Seat Side Airbags - Remote Deployment in this procedure.

Driver, Passenger, Knee, Side Curtain and Seat Side Airbags - Remote Deployment

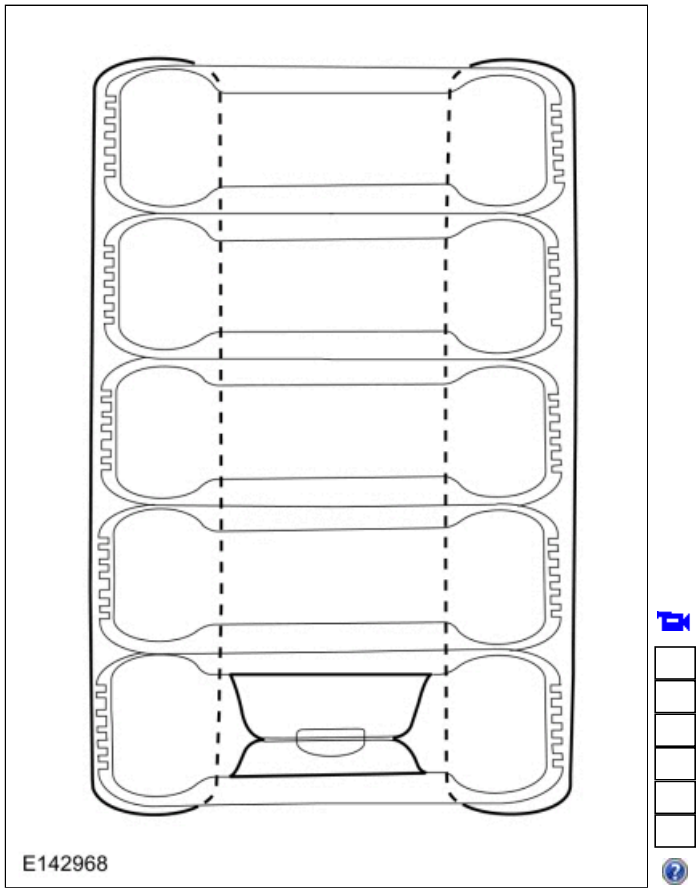
NOTE: *For airbags with multiple loops, deploy all of the loops on the airbag.*

NOTE: *Some driver and passenger front airbags have 2 deployment stages and an active canister vent. After a collision it is possible that Stage 1 has deployed and Stage 2 and the active canister vent have not. If a front airbag has deployed, it is mandatory the front airbag be remotely deployed using the appropriate airbag disposal procedure.*

NOTE: *A typical airbag disposal is shown that is similar for all vehicles.*

18. - **NOTE:** *The tires must be of sufficient size to accommodate the airbag.*

      Obtain a tire and wheel assembly and 4 additional tires (without wheels) of the same size.
    - With the tire and wheel assembly on the bottom, stack the tires.
    - Securely tie all of the tires together.



19. Depower the SRS
    Refer to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

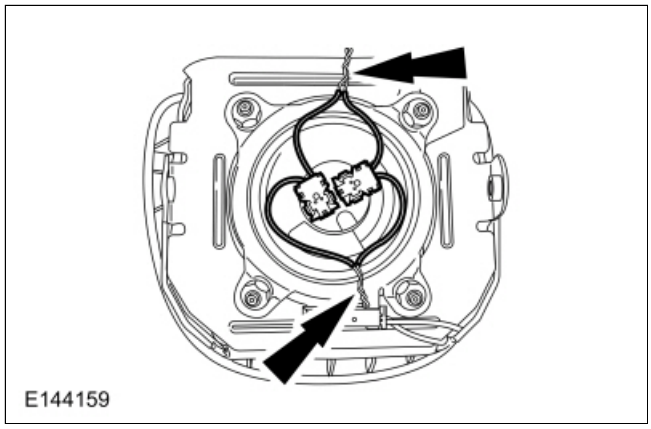
20. Remove the airbag. Refer to the appropriate procedure in this section.

21. If the airbag does not have a hard-wired pigtail:
    - For vehicles being scrapped, cut each of the airbag wires near the electrical connector that connects to the vehicle wire harness.
    - For vehicles not being scrapped, acquire the appropriate wiring pigtail kit. REFER to the Wiring Diagrams manual.

22. Remove any sheathing (if present) and strip the insulation from the ends of the cut wires.

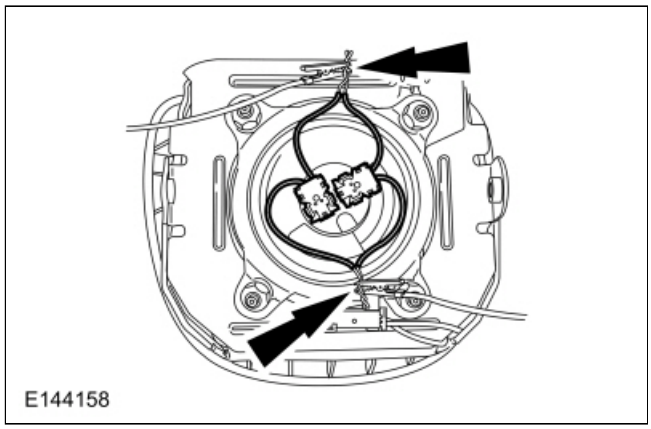
23. **NOTE:** *Typical driver airbag with 2 loops shown, other airbags with multiple loops or multiple features (canister vent, active tether) similar.*

    For airbags with multiple loops, twist together a wire from each loop then repeat for the remaining wires from each loop.



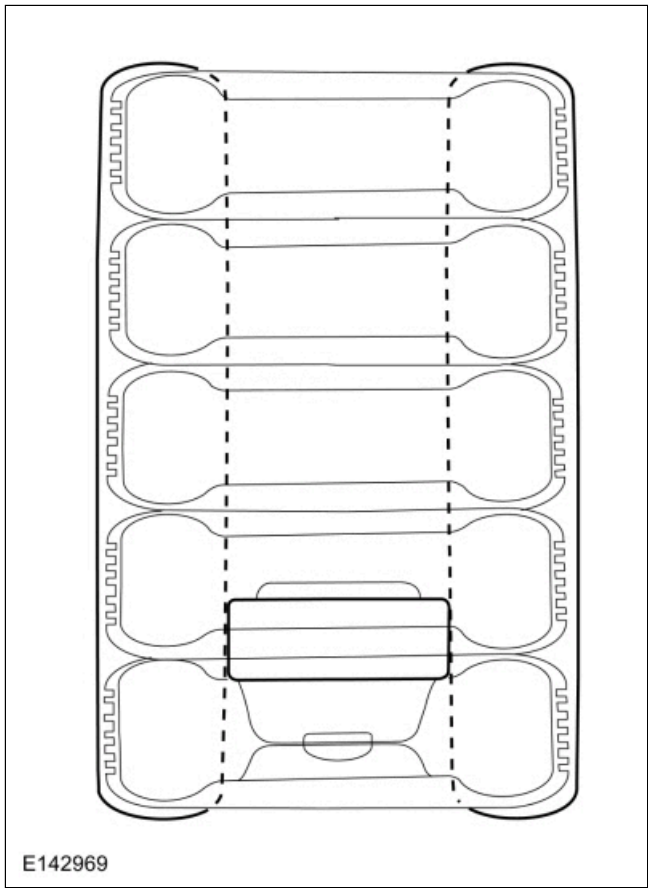
24.
- Make a jumper harness to deploy the airbag module by obtaining 2 wires (20 gauge minimum) at least 9.14 m (30 ft).
- At one end of the jumper harness, connect the wires together.

25. Using the end of the jumper harness where the wires are not connected together, attach each wire of the jumper harness to each wire of the airbag or to the twisted-together wires if multiple loops. Use tape or other insulating material to make sure the leads do not make contact with each other.



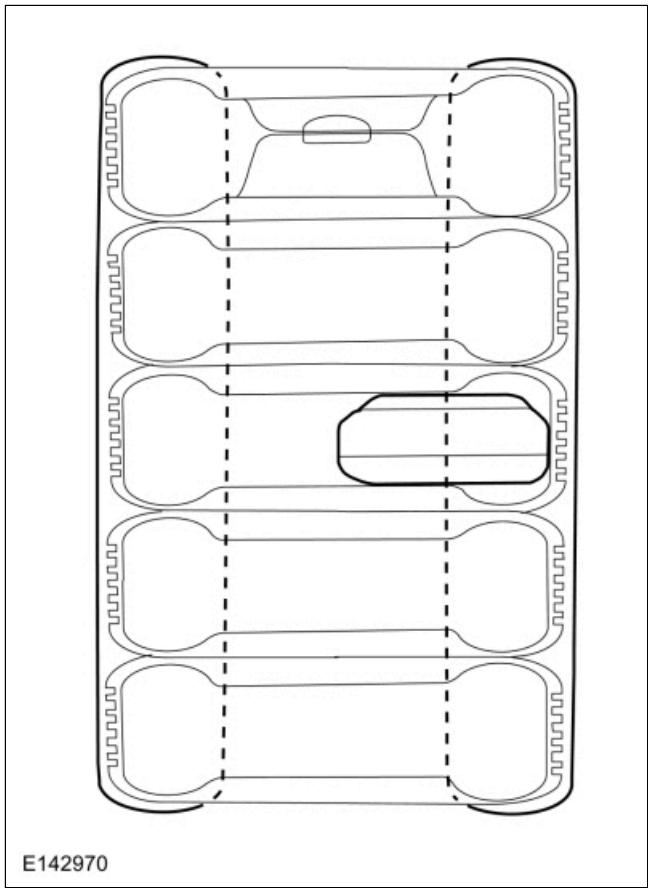
26. **NOTE:** *Make sure the airbag connections are maintained.*

    For driver airbags, with the stack of tires upright and the wheel on the bottom, carefully place the driver airbag, with the trim cover facing up, on the wheel.



27. **NOTE:** *Make sure the airbag connections are maintained.*

- For passenger, knee and seat side airbags, tip the stack of tires on its side.
- Place the airbag inside the center tire, making sure that there are 2 tires beneath the tire containing the airbag and 2 tires (including the tire and wheel assembly) above the tire containing the airbag.
- Place the tire stack upright, with the wheel on top.

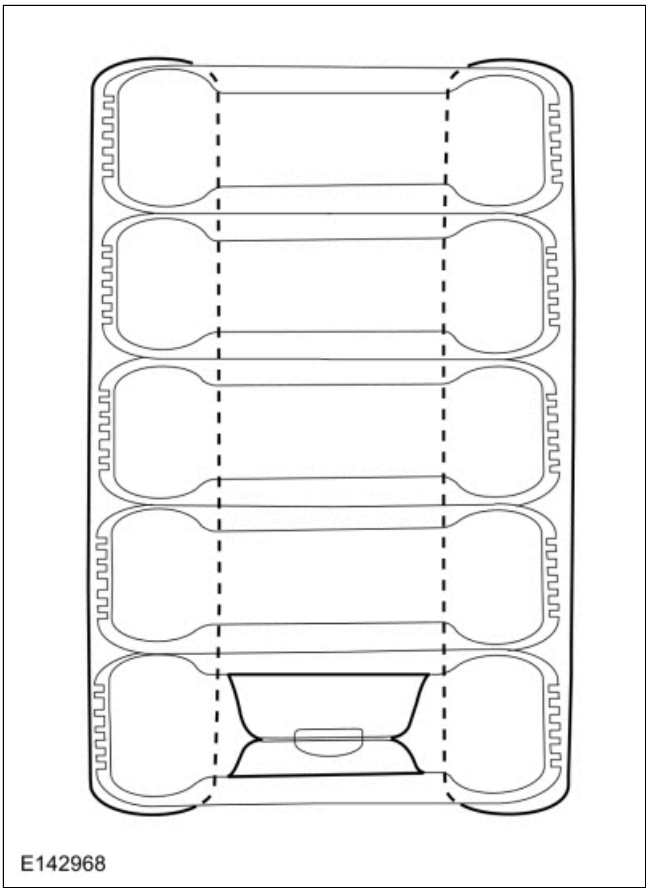


28. Remain at least 9.14 m (30 ft) away from the airbag.
29. From the end of the jumper harness that is not connected to the airbag, disconnect the 2 wires of the jumper harness from each other.
30. Deploy the airbag by touching the ends of the 2 wires of the jumper harness to the terminals of a 12-volt battery.
31. To allow for cooling, wait at least 10 minutes before approaching the deployed airbag.
32. Dispose of the deployed airbag in the same manner as any other part to be scrapped.

Seatbelt Anchor-Buckle-Retractor Pretensioners, Adaptive Load Limiting Retractors and Seatbelt Inflators - Remote Deployment

33. - **NOTE:** *The tires must be of sufficient size to accommodate the seatbelt anchor, buckle, retractor or inflator.*

    Obtain a tire and wheel assembly and 4 additional tires (without wheels) of the same size.
    - With the tire and wheel assembly on the bottom, stack the tires.
    - Securely tie all of the tires together.



34. Depower the SRS .
    Refer to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

35. Remove the seatbelt anchor, buckle, retractor or inflator. Refer to the appropriate procedure in the seatbelt system section.

36. If the seatbelt anchor, buckle, retractor or inflator does not have a hard-wired pigtail, cut each of the wires near the electrical connector that connects to the vehicle wire harness.

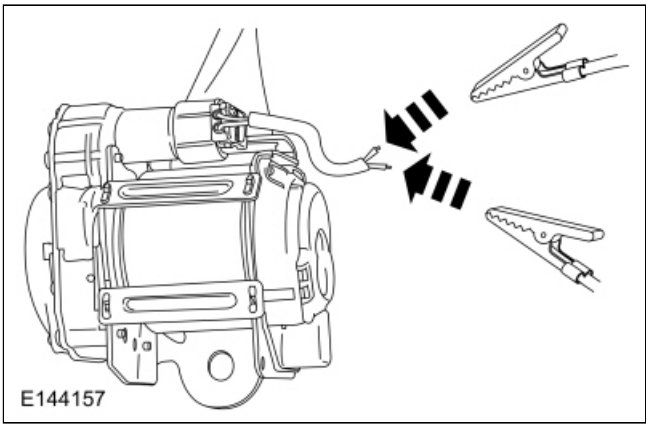
37. When deploying a seatbelt buckle pretensioner, install a nut and bolt of sufficient length and the same diameter used to retain it to the seat.

38. Remove any sheathing (if present) and strip the insulation from the ends of the cut wires.

39.
    - Make a jumper harness to deploy the seatbelt anchor, buckle, retractor or inflator by obtaining 2 wires (20 gauge minimum) at least 9.14 m (30 ft).
    - At one end of the jumper harness, connect the wires together.

40. **NOTE:** *Typical seatbelt retractor pretensioner shown, other seatbelt anchor pretensioners, buckle pretensioners, load-limiting retractors and seatbelt inflators similar.*

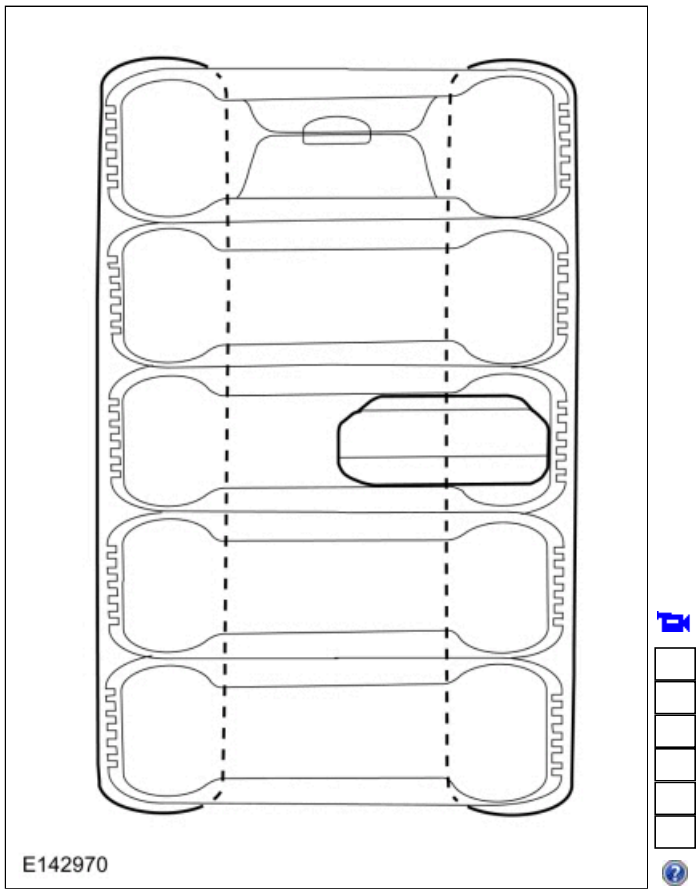
    Using the end of the jumper harness where the wires are not connected together, attach each wire of the jumper harness to each wire of the seatbelt anchor, buckle, retractor or inflator. Use tape or other insulating material to make sure the leads do not make contact with each other.



41. **NOTE:** *Make sure the airbag connections are maintained.*

    - Tip the stack of tires on its side.

- Place the seatbelt anchor, buckle, retractor or inflator inside the center tire, making sure that there are 2 tires beneath the tire containing the airbag and 2 tires (including the tire and wheel assembly) above the tire containing the airbag.
- Place the tire stack upright, with the wheel on top.

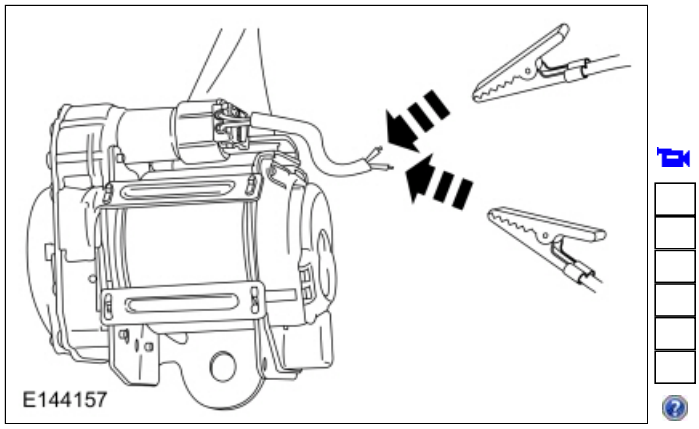


42. Remain at least 9.14 m (30 ft) away from the seatbelt anchor, buckle, retractor or inflator.
43. From the end of the jumper harness that is not connected to the seatbelt anchor, buckle, retractor or inflator, disconnect the 2 wires of the jumper harness from each other.
44. Deploy the seatbelt anchor, buckle, retractor or inflator by touching the ends of the 2 wires of the jumper harness to the terminals of a 12-volt battery.
45. To allow for cooling, wait at least 10 minutes before approaching the deployed seatbelt anchor, buckle, retractor or inflator.
46. Dispose of the deployed seatbelt anchor, buckle, retractor or inflator in the same manner as any other part to be scrapped.

Seatbelt Anchor-Buckle-Retractor Pretensioners, and Adaptive Load Limiting Retractors - In-Vehicle Deployment

47. Depower the SRS
    Refer to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
48. Access the seatbelt anchor, buckle or retractor electrical connectors. Refer to the appropriate procedure in the seatbelt system section.
49. Cut each of the seatbelt anchor, buckle or retractor wires, leaving at least 101.6 mm (4 in) to work with.
50. Remove any sheathing (if present) and strip the insulation from the ends of the cut wires.
51. - Make a jumper harness to deploy the seatbelt anchor, buckle or retractor by obtaining 2 wires (20 gauge minimum) at least 9.14 m (30 ft).
    - At one end of the jumper harness, connect the wires together.
52. **NOTE:** *Typical seatbelt retractor pretensioner shown, other seatbelt anchor pretensioners, buckle pretensioners and load-limiting retractors are similar.*

    Using the end of the jumper harness where the wires are not connected together, attach each wire of the jumper harness to each wire of the seatbelt anchor, buckle or retractor. Use tape or other insulating material to make sure the leads do not make contact with each other.



53. Remain at least 9.14 m (30 ft) away from the seatbelt anchor, buckle or retractor.
54. Remain at least 9.14 m (30 ft) away from the seatbelt anchor, buckle, retractor or inflator.
55. From the end of the jumper harness that is not connected to the seatbelt anchor, buckle or retractor, disconnect the 2 wires of the jumper harness from each other.
56. Deploy the seatbelt anchor, buckle or retractor by touching the ends of the 2 wires of the jumper harness to the terminals of a 12-volt battery.
57. To allow for cooling, wait at least 10 minutes before approaching the deployed seatbelt anchor, buckle or retractor.
58. Dispose of the deployed seatbelt anchor, buckle or retractor in the same manner as any other part to be scrapped.

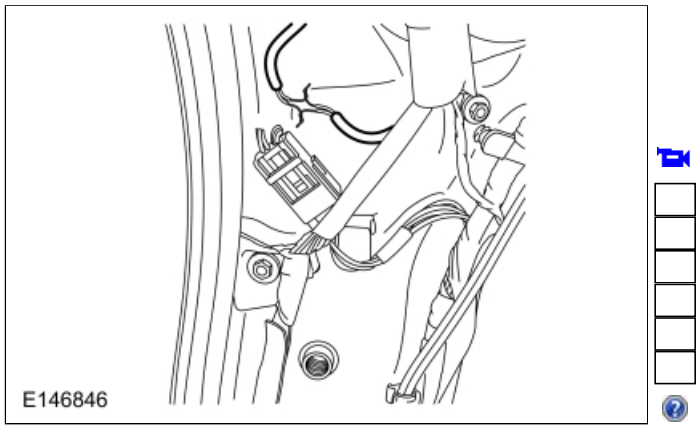
Safety Canopy® and Side Air Curtains - In-Vehicle Deployment

NOTE: *The Safety Canopy® deployment for a scrapped vehicle occurs in its installed position in the vehicle.*

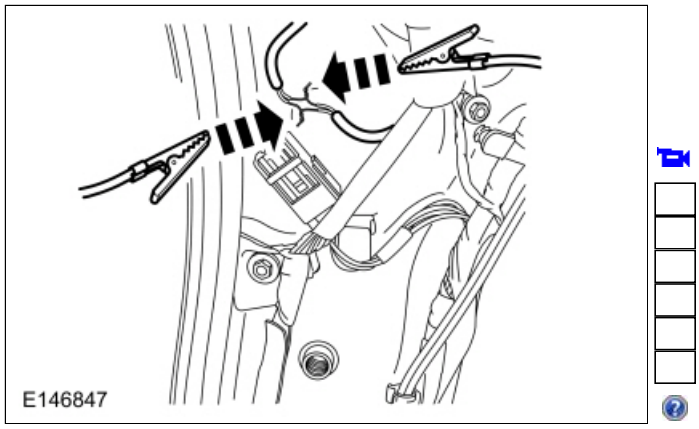
NOTE: *A typical Safety Canopy® disposal is shown.*

59. Depower the SRS
    Refer to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
60. Access the Safety Canopy® /side air curtain electrical connectors. For additional information, refer to the appropriate procedure in this section.
61. Cut each of the Safety Canopy® /side air curtain wires, leaving at least 101.6 mm (4 in).
62. Remove any sheathing (if present) and strip the insulation from the ends of the cut wires.
63. **NOTE:** *Typical Safety Canopy® /side air curtain with 2 loops shown, other Safety Canopy® /side air curtains with 2 loops are similar.*

    For Safety Canopy® /side air curtains with multiple loops, twist together a wire from each loop then repeat for the remaining wires from each loop.



64. - Make a jumper harness to deploy the Safety Canopy®/side air curtains by obtaining 2 wires (20 gauge minimum) at least 9.14 m (30 ft).
    - At one end of the jumper harness, connect the wires together.
65. Using the end of the jumper harness where the wires are not connected together, attach each wire of the jumper harness to each wire of the Safety Canopy® /side air curtain or to the twisted-together wires if multiple loops. Use tape or other insulating material to make sure the leads do not make contact with each other.



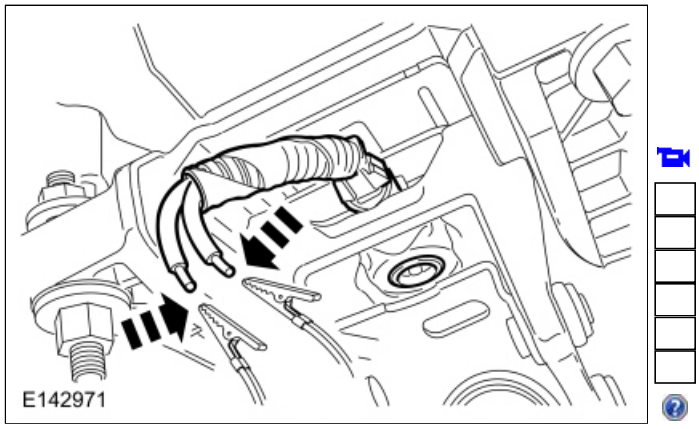
66. From the end of the jumper harness that is not connected to the Safety Canopy® /side air curtain, disconnect the 2 wires of the jumper harness from each other.
67. Deploy the Safety Canopy® /side air curtain by touching the ends of the 2 wires of the jumper harness to the terminals of a 12-volt battery.
68. To allow for cooling, wait at least 10 minutes before approaching the deployed Safety Canopy® /side air curtain.
69. Dispose of the deployed Safety Canopy® /side air curtain in the same manner as any other part to be scrapped.

Deployable Steering Column - In-Vehicle Deployment

70. Depower the SRS
    Refer to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
71. **NOTE:** *It may be necessary to lower or remove the deployable steering column from the instrument panel to access the deployable steering column electrical connector.*

    Access the deployable steering column electrical connector.
72. **NOTE:** *If the deployable steering column does not have a hard-wired pigtail, cut the wires and connector(s) from the vehicle wire harness and reconnect to the deployable steering column.*

    Cut each of the deployable steering column wires, leaving at least 101.6 mm (4 in) to work with.
73. Remove any sheathing (if present) and strip the insulation from the ends of the cut wires.
74. - Make a jumper harness to deploy the deployable steering column by obtaining 2 wires (20 gauge minimum) at least 9.14 m (30 ft).
    - At one end of the jumper harness, connect the wires together.
75. Using the end of the jumper harness where the wires are not connected together, attach each wire of the jumper harness to each wire of the deployable steering column. Use tape or other insulating material to make sure the leads do not make contact with each other.



76. Remain at least 9.14 m (30 ft) away from the deployable steering column.
77. From the end of the jumper harness that is not connected to the deployable steering column, disconnect the 2 wires of the jumper harness from each other.
78. Deploy the deployable steering column by touching the ends of the 2 wires of the jumper harness to the terminals of a 12-volt battery.
79. To allow for cooling, wait at least 10 minutes before approaching the deployed steering column.
80. Dispose of the deployed steering column in the same manner as any other part to be scrapped.

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